

The effect of adding citric acid and probiotic, and their mixture to the ration on some of the productive and physiological traits of broiler chicks

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ABSTRACT:

This study was conducted in the poultry field belonging to Animal Production Department, College of Agriculture, Al-Qasim green University during the period of 31.1.2018 to 13.3.2018 for the purpose of knowing the effect of adding two different levels of citric acid and probiotic and their mixture to the ration on some of the productive and physiological traits of broiler chicks. In this study, a 270 broilers chick with one day age were used, with an average weight of 43 g from the strain of (Ross 308). The chicks were randomly distributed in six treatments with 45 birds for each treatment, with three replicates per treatment and 15 birds for each replicate in the cages with the dimensions of 1 x 1.5 m. The treatments were as follows:

The first treatment T_1 (control, basic ration without adding citric acid and probiotic). The second treatment T_2 (the basic ration with the addition of citric acid at a concentration of 2 g/kg feed). The third treatment T_3 (the basic ration with the addition of citric acid at a concentration of 2.5 g/kg feed). The fourth treatment T_4 (the basic ration with the addition of probiotic at a concentration of 2 g/kg feed). The fifth treatment T_5 (the basic ration with the addition of the probiotic with a concentration of 2.5 g/kg feed). The sixth treatment T_6 (the basic ration with the addition of citric acid at a concentration of 1.5 g/kg feed + probiotic at a concentration of 1.5 g / kg feed).

The results of the experiment showed a significant ($P < 0.01$) superiority for birds of all treatments on the birds of first treatment in the live body weight at the sixth week of age. A significant ($P < 0.01$) superiority for two treatments (T_3, T_5) on two treatments (T_1, T_2) was observed in the average increase of total weight, no significant differences were observed in the average of total feed consumption during the sixth week.

Keywords:

Citric acid, Probiotic, Broiler chicks.